

## Abstracts

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ceiving prophylactic therapy experience both higher lifetime costs (\$3,542,357) and higher QALYs (18.95) than patients receiving on-demand therapy (\$2,455,268, 15.31). The ICER was determined to be \$298,531/QALY. In the sensitivity analysis, the ICER was sensitive to the number of units/kg/yr of factor used per patient, the probability of arthropathy in years 1 through 5, and the utilities assigned. Varying these parameter estimates resulted in an ICER ranging from \$8,315 to \$616,158/QALY. **CONCLUSION:** Results from the baseline model indicate that lifetime prophylactic infusion of factor VIII in patients with hemophilia is above the generally accepted threshold for cost-effectiveness of \$50,000 per QALY. Due to the model's sensitivity to the amount of factor used, it is recommended that pharmacokinetic dosing be explored to reduce the amount of factor needed to achieve therapeutic levels. Research to determine more accurate utilities for persons with hemophilia with and without arthropathy are also needed.

CV6

### ECONOMIC EVALUATION OF DALTEPARIN, ENOXAPARIN AND UNFRACTIONATED HEPARIN IN THE TREATMENT OF DEEP VEIN THROMBOSIS

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**OBJECTIVES:** As low molecular weight heparins (LMWH)s such as enoxaparin (ENOX) and dalteparin (DALT) add drug acquisition cost, yet eliminate the need for activated prothrombin time (aPPT) monitoring compared to unfractionated heparin (UFH), we developed an economic model to quantify the value of DALT, or ENOX compared to UFH as cost per clinical event avoided from a health management organization perspective. **METHODS:** With a hypothetical patient cohort with confirmed DVT, treatment and clinical outcomes were modeled using a conventional decision tree over a 6 month timeframe. Treatment with LMWH or UFH continued for an average of 5 days. Possible clinical events included thrombocytopenia, major bleed, recurrent VTE, or death from any cause. Inpatient treatment with UFH was necessary due to the IV route of administration and need for apt monitoring. Subcutaneous administration of LMWHs facilitate early discharge from hospital or treatment in the outpatient setting for the duration. Based on published sources, we assumed the proportion of patients receiving LMWH as inpatients, outpatients or with early discharge were 45%, 30% and 25%, respectively. Drug efficacy was obtained from a meta-analysis of published clinical trials. Resource use data associated with drugs and inpatient and outpatient medical care were obtained from published sources, treatment guidelines and an expert physician panel. Medical unit costs (2000 \$US) were obtained from published sources. **RESULTS:** The baseline analysis showed DALT and ENOX prevented 28 and 17 clinical events respectively per 1000 patients com-

pared to UFH. The total medical cost per patient treated with DALT, ENOX and UFH was \$3199, \$3347, and \$5104, (US\$) respectively. Compared to UFH, cost savings with use of LMWH was attributed to reduced clinical events and fewer hospital days. Sensitivity analysis showed results were robust. **CONCLUSIONS:** These figures indicate that LMWHs provide important improvements with medical cost savings and thus are attractive both clinically and economically.

CV7

### COST-EFFECTIVENESS OF CARDIOVASCULAR DISEASE (CVD) PREVENTION BY REDUCING POSTPRANDIAL HYPERGLYCEMIA

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**OBJECTIVES:** To estimate the cost-effectiveness of the insulinotropic agent nateglinide vs. metformin using an epidemiologic risk model that quantifies the relationship between glucose spikes as measured by 2 hour postprandial blood glucose (2h-BG) and risks for all cause mortality, acute myocardial infarction (AMI), and stroke in diabetic patients. **METHODS:** We used data from the DECODE study database (N = 22,474, with up to 25 years of follow-up) to estimate parametric failure time models predicting the risk for death, AMI, and stroke for 2h-BG, and other CVD risk factors. The risk equations were used to develop a decision model that projected risks, costs, and years of life for up to 40 years for men and women with and without an intervention specifically to control 2h-BG (results for men with 2h-BG >11 mmol/L reported below). Costs included the intervention and the costs of CVD events. All costs are expressed in Swiss francs (CHF), and were discounted at 3%. Clinical efficacy was taken from a randomised clinical trial of nateglinide versus metformin. **RESULTS:** When results were projected for 15, 25, and 40 years, incremental costs were 9,137, 10,047, 10,133 CHF, respectively (1 CHF ~ \$0.60). Discounted years of life saved for these same intervals were 0.15, 0.24, and 0.26. The ratios of cost per year of life saved were 59,600, 41,500, 38,400 CHF. **CONCLUSIONS:** Initial modeling suggests that therapy with nateglinide among individuals with elevated levels of 2h-BG reduces the risk for death and CVD events and has acceptable cost-effectiveness ratios compared to metformin.

CV8

### WORK-RELATED OUTCOMES OF PATIENTS SIX MONTHS AFTER MYOCARDIAL INFARCTION

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